

## 2.—WESTERN AUSTRALIAN OPILIONES.

By

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The following paper is based on the collection of opilionids in the Western Australian Museum. I wish to thank Mr. L. Glauert, Curator, Western Australian Museum for his kindness in permitting this material to be forwarded to New Zealand for examination. The collection comprises a large series of Laniatores and a few Palpatores. Unfortunately all the Palpatores are immature and thus cannot be dealt with. However it is of interest to record that the claws of the pedipalps of all the specimens are strongly pectinate and therefore would fall in the sub-family Megalopsalinae (Forster 1949), not as was previously thought, in the sub-family Phalangiinae. The collection of Laniatores includes three species, *Bindoona glauerti* Roewer (family Phalangodidae), *Nunciella aspera* (Pocock) and *Dingupa glauerti* n.gen.n.sp. (family Triaenonychidae). In the present paper *Dingupa glauerti* n.gen.n.sp. is described and *Nunciella aspera* (Pocock) redescribed, while *N. frontalis* Roewer is listed as a synonym of *N. aspera*.

Family **TRIAENONYCHIDAE** Sorensen.Sub-Family **ADAEINAE** Pocock.Genus **DINGUPA** nov.

Eyemound only slightly removed from the anterior margin of the cephalothoracic carapace and armed with a small apical spine. Scutum lacking spines. Areas 1-5 clearly defined by transverse grooves. Areas 1-4 each divided into a number of plates by longitudinal grooves. Sternum narrowly triangular. Chelicerae small and lacking spines. Pedipalps relatively well developed and strongly spined. Tarsal formula 3, 5, 4, 4. Distitarsi of leg 1, two-segmented, leg 2, three-segmented. Side branches of tarsal claws of legs 3 and 4 smaller than median prong. Calcaneus small. Spiracles hidden. Sexual dimorphism present in the chelicerae and the spines of the anterior margin of the cephalothoracic carapace.

Genotype **Dingupa glauerti** n.sp.

This genus may be immediately distinguished from all described Australian Triaenonychids by the structure of the scutal areas. I have a number of species of an as yet undescribed New Zealand genus which is also characterised by a similar structure of the scutum. I have placed *Dingupa* in the sub-family Adaeinae which is characterised by a broad sternum. However I do not believe that the separation of sub-families on the shape of the sternum reflects any phylogenetic trend in this family and that the Triaenonychidae should be completely revised.

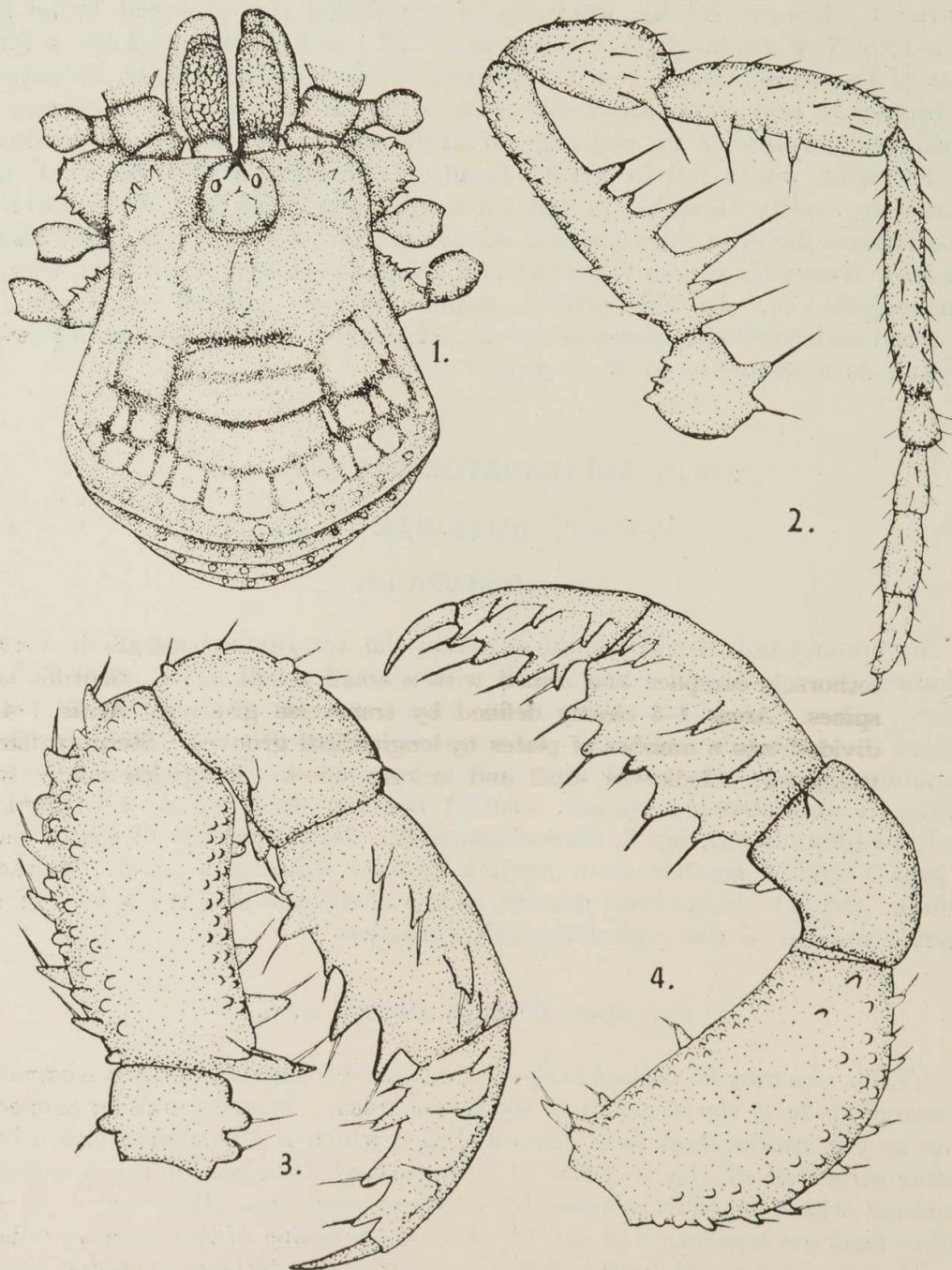
**Dingupa glauerti** n.sp.

Text figs. 1-5.

MALE.  
Measurements.

	Length of body	....	....	....	....	....	....	....	2.24
	Width of body	....	....	....	....	....	....	....	1.68
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total.	
Leg 1	0.48	0.24	0.74	0.39	0.58	0.74	0.49	3.66	
Leg 2	0.54	0.24	0.93	0.48	0.94	1.04	0.68	4.85	
Leg 3	0.58	0.29	0.93	0.38	0.69	0.79	0.54	4.20	
Leg 4	0.61	0.34	1.14	0.44	1.04	1.13	0.69	5.39	
Pedipalp	....	0.35	0.94	0.45	0.54	....	0.38	2.66	
Chelicera	....	Basal 0.64	Second 0.78	....	....	....	....	1.42	

*Colour*.—Body dark brown but with a few orange-yellow markings on the cephalothoracic carapace (text fig. 1). The appendages are orange-yellow with irregular black markings.

Text figs. 1-4: *Dingupa glauerti* n.sp.

1, Dorsal view of body; 2, Leg 1; 3, Retrolateral view of pedipalp;  
4, Proventral view of pedipalp.

*Body* (text fig. 1).—The eyemound is as wide as high. It slopes steeply up from the anterior margin of the carapace but slopes gently back down the posterior surface. A short forwardly directed spine is situated anterior to the eyes. The anterior margin of the carapace is entire and unarmed except for two strong spines, one at the retrolateral margin of each chelicera. The surface of the carapace is rough in appearance but not granulate. A row of three small spines extend obliquely across each anterior corner of the carapace. The carapace is separated from the scutum by a deep transverse groove. The five scutal areas are clearly defined. A large median plate is present on each of areas 1–3. The median plates of areas 1 and 2 are bounded on each side by a large single plate. A series of four small irregularly shaped plates extend to the lateral margins each side of the median plate of area 3. Area 4 is broken up into a row of plates, square in the median region but irregularly shaped laterally. Area 5 is not divided into plates. A transverse row of four large granules is present on the median surface of areas 1–4. A transverse row of granules extends across area 5, of which the median one is largest. The three free tergites and all sternites have each a transverse row of small granules. The spiracles are hidden. The sternum is relatively broad and genital operculum is smooth and shaped as shown in text fig. 5.

*Chelicerae*.—These are small. The basal segment is smooth and constricted proximally where the dorsal surface forms a smoothly rounded knob. A line of small setose tubercles extends along the dorsal surface of the second segment, which is otherwise unarmed.

*Pedipalps* (text fig. 4).—These are relatively well developed. There is one small spine on the ventral and a further small spine on the dorsal surface of the trochanter. The ventral surface of the femur is armed with a large proximal spine followed by two smaller spines, one at one-fifth and the other at half-way. A large rounded tubercle is present prolateral to the proximal spine and the entire ventral surface is closely covered with small granules. The dorsal surface is covered with numerous small spines and there is also a line of eight larger spines extending along the mid-line. The patella is smooth except for two small spines, one on the ventral surface and the other on the distal surface. Four strong spines are present on the prolateral surface of the femur, of which the distal pair are adjacent. The retrolateral surface of the femur is armed with five spines, of which the third is small. The tarsus is armed with three spines on the prolateral surface and four on the retrolateral surface. The tarsal claw is strong.

*Legs*.—Numerous small tubercles are distributed on the coxae as shown in text fig. 5. Leg 1 is spined as follows (text fig. 2). Trochanter, two on ventral surface. Femur, six along proximal two-thirds of ventral surface. Patella, one on prodistal surface. Tibia, three along ventral surface. Metatarsus and tarsus smooth. The remaining legs are unarmed except for small setose tubercles. The calcaneus is much shorter than the astralagus. Tarsal formula 3, 5, 4, 4. Distitarsus of leg 1, two-segmented, leg 2, three-segmented. Side branches of legs 3 and 4 much shorter than median prong.

## FEMALE.

Measurements.	Length of body ....						2.13	
	Width of body ....						1.74	
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total.
Leg 1 ....	0.34	0.19	0.62	0.33	0.48	0.53	0.39	2.88
Leg 2 ....	0.54	0.13	0.88	0.39	0.63	0.68	0.87	4.12
Leg 3 ....	0.54	0.12	0.74	0.29	0.54	0.53	0.44	3.20
Leg 4 ....	0.69	0.13	0.94	0.39	0.84	1.05	0.54	4.58
Pedipalp ....	....	0.19	0.48	0.28	0.33	....	0.29	1.57
Chelicerae ....		Basal 0.43		Second 0.54				0.97

The female is much smaller than the male, but as it is very similar to the male in structure differing only in the following features.

The basal segment of the chelicera is not constricted in the proximal region as in the male and the spines at the retrolateral margin of the chelicerae are small.

Although the pedipalps of the females are smaller than those of the males, the spines are relatively more strongly developed. There is a row of five spines along the ventral surface of the femur of which the third and fifth are small. The first spine on the retromargin of the tibia is reduced to a small tubercle. Otherwise the spination is similar (text fig. 3).

The spines of leg 1 are not as strong as in the male but otherwise the legs are similar. Tarsal formula 3, 5, 4, 4. Distitarsus of leg 1, two-segmented, leg 2, three-segmented.

*Types*.—Holotype male No. 36/2136, allotype female 36/2137, three paratype females 36/2136–36/2140, in collection of Western Australian Museum.

*Locality*.—All five specimens were collected by Mr. L. Glauert at Dingup in March, 1936.

#### Sub-family **TRIAENONYCHINAE** Pocock.

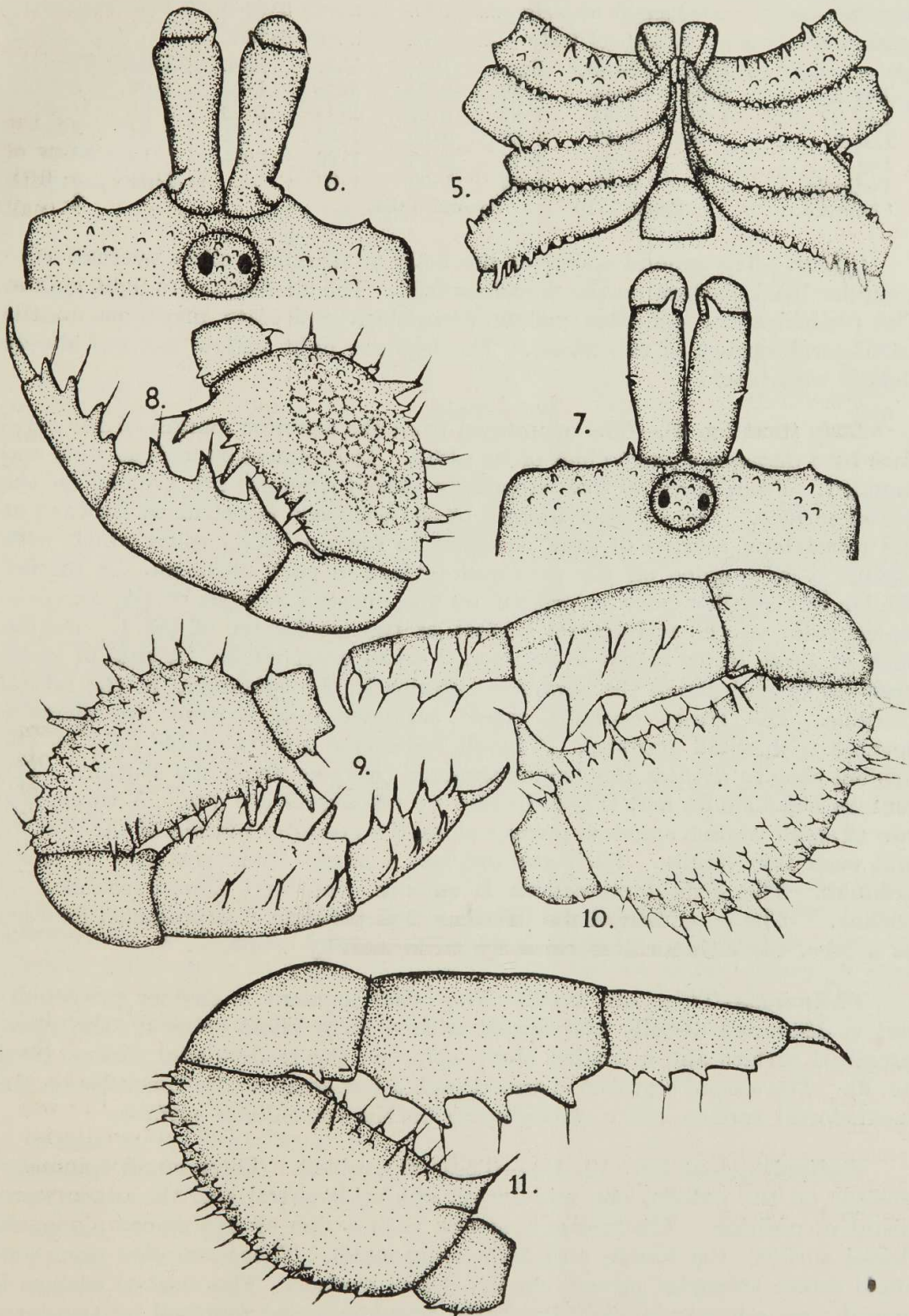
##### Genus **NUNCIELLA** Roewer 1929.

The genus *Nunciella* was established by Roewer (1929) for *Nuncia aspera* Pocock and separated from *Nuncia* Loman by the possession of four segments in the distitarsus of leg 2 as distinct from the three present in *Nuncia*. Roewer (1931) has since described four further species, *N. cheliplus*, and *N. parvula* from Victoria, *N. granulata* from New Zealand, and *N. frontalis* from Western Australia. In a recent paper (Forster, 1949) I have described a further species (*N. tuberculata*) from Victoria. During the examination of *N. tuberculata* a number of striking sexual differences were noticed. The ventro-proximal spine of the femur of the pedipalp is much expanded in the male and merely unevenly bifid in the female and the spine on the coxa of leg 1 against which this spine rests is correspondingly modified. Also a large rounded spine is present on the retro-proximal surface of the basal segment of the chelicera in the male but absent in the female. This sexual dimorphism is also present in the series of *N. aspera* under examination at present and was apparently overlooked by Roewer in 1929 when examining the same material. It seems probable that a similar dimorphism is found throughout this genus. If this is so it would appear that the figures of *N. frontalis* and *N. parvula* as given by Roewer (1931) are not of males as is stated in the caption but females.

#### **Nunciella aspera** (Pocock).

Text figs. 6-11.

- 1903 *Triaenonyx aspera* Pocock.
- 1910 *T. aspera* Loman.
- 1914 *Nuncia aspera* Roewer.
- 1923 *Nuncia aspera* Roewer.
- 1931 *Nunciella aspera* Roewer.
- 1931 *Nunciella frontalis* Roewer



Text fig. 5: *Dingupa glauerti* n.sp. Antero-ventral view of male.

Text figs. 6-11: *Nunciella aspera* (Pocock).

6, Antero-dorsal view of male; 7, Antero-dorsal view of female; 8, Retrolateral view of female; 9, Prolateral view of female pedipalp; 10, Prolateral view of male pedipalp; 11, Retrolateral view of male pedipalp.